ANTHRIBIDAE COLLECTED BY SIGNOR L. FEA

on the islands of Fernando Po, S. Thomé and Principe.

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(With 3 text figures). '

Hardly any Anthribidae have been recorded from the islands situated in the Bay of Benin, apart from the three species described by me in 1911 from the small collection made by A. Mocquerys on S. Thomé. The present collection, therefore, is of particular interest. The material obtained by L. Fea on the three islands mentioned in the heading of this article is not very extensive, but is nevertheless large enough to give us a fair idea of the relationship of these islands as regards the Anthribid fauna. As in the case of other groups of animals, the Anthribidae of Fernando Po are not essentially different from those of the mainland, most species not showing any differences from the specimens we have from the Cameroons or Congo. Of the five new species here described from Fernando Po one is in our collection also from the Congo and the others may likewise be expected to occur on the mainland.

On the other hand, the percentage of forms peculiar to S. Thome and Principe is large. The two islands have most of the species in common, but there appear often slight differences in colour, which we have duly noted were they occur.

1. Mecocerus barombinus, Kolbe (1895).

A series from Fernando Po: Bahia de San Carlos, XII-1901; Musola, 500-800 m., I-1902; Punta Frailes, X-XI-1901.

2. Mecocerus modestus, JORD. (1910).

Fernando Po, one ♂ and two ♀♀: Bahia de San Carlos, XII-4901; Musola I-III-4902; Basilé, 400-600 m. VIII-4901.

The spots on the elytra are more numerous than in our series from the Cameroons, and in the S. Carlos specimen the marking of the upper and undersides are clayish.

3. Litocerus mocquerysi, JORD. (1894).

A series from Fernando Po: Bahia de S. Carlos, XII. 1901 and III. 1902: Musola, I. 1902; Punta Frailes, X-XI. 1901

4. Litocerus beninus, nov. sp.

♂♀. Speciei praecedenti simillimus, parum latior, fortius punctatus, carina dorsali pronoti in medio fortius angulata.

S. Thomé, one o and one Q: Ribeira Palma, VII-1900.

Probably a geographical race of *L. mocquerysi*. The markings are more clayish, especially those on the pronotum and the basal half of the elytra. The pronotal carina forms a much sharper angle in front of the scutellum than in *L. mocquerysi*; the puncturation both of the pronotum and the elytra is coarser, the antemedian depression of the elytra is deeper, and the subbasal hump and the interstices III, V and VII are more elevate. On the underside the lateral spots are much less prominent.

In size *L. beninus* agrees with the smaller specimens of *L. mocquerysi*, but is somewhat broader, especially in the elytra.

5. Acorynus conradti, Jord. (1901).

Fernando Po, one \circlearrowleft : Punta Frailes, X-XI. 1901. Originally described from a \subsetneq from the Cameroons. The present \circlearrowleft shows this sex to have the midtibia mucronate.

6. Acorynus calcaratus, JORD. (1894).

Fernando Po, one Q: Punta Frailes, X-XI. 1901.

7. Acorynus benitensis, Jord. (1903).

Principe, one Q: Roça Inf. D. Henrique, 100-300 m., III. 1901. The sides of the pronotum are more extended luteous than in continental examples, and the brown spots im the anterior half of the elytra are larger and those in the posterior half smaller. But as the markings vary in our continental examples, it is not advisable to describe the single Principe specimen as representing a distinct race.

8. Acorynus ravidus, nov. spec.

♂. Niger, luteo maculatus, antennis rufo-piceis articulo 8.º rufo. Rostrum latum, rugoso-punctatum, medio longitudinaliter impressum, utrinque bicarinatum, carina dorsali basi medium flexa. Caput punctatum. Prothorax conicus, lateribus punctatus, carina parum convexa angulo laterali valde rotundato; macula parva parum elongata centrali, duabus lateralibus ac gutta antescutellari griseo-luteis signatus. Elytra tribus fasciis interruptis irregularibus ornata: una basali, altera antemediana, tertia mediana, atque in apice declivi pluribus guttis eodem colore. Pygidium et segmentum anale longa. Tarsi longi, segmento 1.º tarsorum posticorum caeteris segmentis simul sumptis dimidio longiore.

Hab. Fernando Po, one o: Musola, 500-800 m., III. 1902.

In shape and colouring resembling A. olivaceus Jord. (1894), but very different in the structure of the restrum. The markings of the pronotum are inconspicuous and ill-defined, with the exception of a small elongate spot in the centre. The basal band of the elytra is very diffuse, the second band commences limbally behind the shoulder and reaches to stripe 2, being continued across the suture by a spot placed further back; the third band reaches from punctured stripe 1 to stripe 6 and is continued to the limbal margin by a spot placed further back, on the suture this band is interrupted by a brown spot, behind which there is

a narrow sutural stripe; between bands 2 and 3 a small limbal spot; on the apical area fine spots: three in a triangle and two at the apex. These markings may be assumed to be variable. Fore tibia and all the tarsi sparsely pubescent grey, mid and hind tibiae appearing black with a whitish basal ring.

Rostrum as long as apically broad; a median depression broad apically, narrowing basally and continued on to the frons, bearing at the base an indication of a thin median carina; this groove is flanked on the frons by a carina which becomes more definite at the base of the rostrum where it curves laterally and then distally, extending to the apex of the rostrum and running nearly parallel with the lateral margin of the latter; this carina forms the outer edge of a raised dorsal area which extends from the base to beyond middle; the cariniform edge of the antennal groove is continued as a carina to the apex of the rostrum, and from it another carina runs backwards, but is broken up by puncturation before reaching the eye. Groove below the eye deep. The frons is a little wider than the second antennal segment is long. Club of antenna slender, the relative lengths of segments VIII to XI being 16, 18, 15, 19.

Prothorax half as broad again as long (17: 11). Carina dorsally almost straight, very slightly convex, with a very faint indication of a median angle, laterally gently flexed backwards and forming an even arc with the lateral carina, the latter straight, oblique, with its centre very faintly curved upwards.

Elytra evenly punctate-striate; subbasal hump not prominent. Pygidium as long as broad.

Intercoxal process of mesosternum narrower than in A. olivaceus. Abdomen medianly flattened, anal segment about as long as II, III and IV together, apically sinuate. First hind tarsal segment a little over half as long again as segments II to IV together.

9. Apatenia gibba, nov. spec.

♂. Robustior quam A. stigmatica Jord. (1901), cui colore similis, tarsis nigris, pronoto profundius impresso trigibboso, elytris pone basin fortius gibbosis absque macula basali.

Long. 9,5 mm., lat. 4.5 mm.

Hab. Fernando Po, one &: Punta Frailes, XI. 1901.

Larger and especially broader than A. stigmatica; pronotum with traces only of a row of four minute grey dots on the disc; elytra without a basal spot above the shoulder, but as in stigmatica with two spots before the middle, the outer spot standing a little further basad than the other, instead of the two being placed side by side, the postmedian velvety black spot larger and more sharply defined than in stigmatica. The club of the antenna is longer; the pronotum is much more uneven, the transverse depression being deeper and the swellings higher; the subbasal hump of the elytrum also is higher.

A second specimen, from the Portuguese Congo, in the Tring Museum.

10. Apatenia benina, nov. spec.

 \mathbb{Q} . Colore et statura A. anali Jord. (1901) simillima, pronoto ante medium multo profundius depresso atque elytris fortiter tuberculatis distinguenda.

A small species; black-brown, variegated with rufous-brown, grey and luteous: legs pale rufous brown, the base and apex of the femora, the base of the tibiae, and the third and fourth tarsal segments more or less extended luteous; a patch on and above shoulder luteous; pygidium and apex of elytra greyish clay; scutellum and a longitudinel line in front of it white, this line indistinctly continued forward between the eyes. Dorsal carina of pronotum almost straight, the lateral angle a little more than 90°; behind the apex of the pronotum a curved transverse depression, along the dorsal carina a less distinct depression, both uneven in depth, the disc between the two depression also uneven; puncturation very coarse. The subbasal hump of the elytrum high; third interspace with three very distinct tubercles, one behind the antemedian depression, the other two before the apical declivity, interspaces V and VII with small tubercles. Prosternum, mesepimerum and anterior portion of metepisternum white, abdomen with a lateral row of small white spots elsewhere the white pubescence sparse.

11. Zygaenodes fernandus, nov. spec. (text-fig. 1).

♂. Rufo-brunneus, luteo variegatus, griseo pubescens, brunneo guttatus, scutello albo. Oculi rotundi antice leviter emarginati. Antennæ elytrorum medium vix attingentes, articulo 3.¹o claviformi, 9.º undecimo longitudine aequali ac paulo longiore quam decimo. Elytrum bituberculatum, interstitiis alternis postice subcostatis guttulis parum elevatis instructis.

Long. 3,3 mm., lat. 1,7 mm.

Hab. Fernando Po, one \mathcal{O} : Bahia de S. Carlos, 0-100 m., XII. 1901.

Agrees in colour with Z. monstrosus Pasc. (1860) from South Africa, but is distinguished by differences in the antennæ

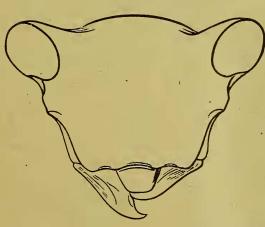


Fig. 1.

and head, and by the less elevate tubercles of the elytra.

The antennæ do not quite reach to the middle of the elytra, the third segment is slender from the base to the middle and thence to the apex gradually incrassate, resembling an Indian club, but is compressed as in Z. monstrosus; it is half as

long again as IV, segments IX and XI are practically equal in lengths, X being one-seventh shorter. The eye, if looked at from above, appears ovate in shape and oblique in position, the outline being strongly rounded towards the frons of the head, not straight or incurved as in Z. monstrosus; above the antennal groove the eye is sinuate, but the sinus is very shallow. The edge of the antennal groove is not so strongly curved upwards as in Z. monstrosus.

12. Zygaenodes simus, nov. spec. (text-fig. 2)

Q. Brunneo-niger, densissime granulatus, sine tuberculis, capite cum rostro ochraceo, elytris dorso ochraceis griseo mixtis, scutello albo; oculis rotundis, versus antennas sinuatis.

Long. 2,3 mm., lat. 1,1 mm.

Hab. Fernando Po, one Q: Basilé, 400-600 m., VIII-IX 1901. The absence of tubercles on the elytra precludes the assumption that this specimen is the female of the previous species. The colour is practically black. Head and rostrum pubescent ochraceous; pronotum with some ill-defined spots of the same colour, from the white scutellum forward across the carina an indication of a whitish stripe; a large but ill-bounded sutural area likewise ochraceous, variegated a little with grey-white, especially in the

under side clayish ochraceous at the sides, grey in the centre, the pro- and metasterna more densely pubescent than the rest; base of metepisternum with indication of a grey spot.

antemedian depression and before the apical declivity. On the

Eye round, little projecting, but nevertheless its posterior rim raised above the surface of the neck as indication of a stalk (the eye doubtless being stalked in the 3. Antennæ reaching beyond basal margin of elytra, first segment rufescent, rest nearly black, segment III half as long again as IV, club narrower than in Q of Z. monstrosus, IX a little longer than X and a very little shorter than XI.

Pronotum convex, with a curved depression behind the apex; dorsal carina more evenly concave than in

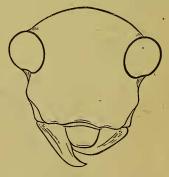


Fig. 2.

Z. monstrosus and towards the sides less strongly curved back.

Elytra much less flattened above than in monstrosus, and at the sides more regularly convex, the subbasal hump is scarcely indicated, and there are no raised pustules and no tubercles; the stripes of punctures are distinct but narrow.

Legs brownish black, sparsely pubescent grey, without distint markings.

13. Syntophoderes guineensis, Kolbe (1895).

Several specimens from Fernando Po: Basilé, 400-600 m., VIII-IX. 1901; Musola, 500-800 m., I. 1902.

14. Nessiabrissus rufitarsis, Jord. (1895).

A small series from Fernando Po: Bahia de S. Carlos, XII. 1901 and III. 1902; Basilé, VIII-IX. 1901; Punta Frailes, X-XI. 1901; Musola, I-III. 1902.

15. Xylinades thomasius, JORD (1911).

S. Thomé, one &: Agua-Ize, 400-700 m., XII. 1900.

I described the species from a Q. The present O, which is the first I have seen, agrees with the Q except in the special O-characters. The tenth antennal segment and the apex of the ninth bear long wool on the inner side, the eighth having a smaller, apical, tuft; the relative lengths of these three segments are 18, 6, 15, the third segment measuring 21.

16. Xylinades princeps, nov. spec.

otin Q. Color et statura X. thomasii, sed distinctius nigro-maculatus, antennarum articulo 10° nigro, clava otin Q glabra.

Hab. Principe, a series of both sexes: Roca Inf. D. Henrique, II, III, IV and V. 1901.

The black markings are more sharply defined than in *X. tho-masius*, forming spots and dots, of which a rounded median spot on each elytrum is the largest and most prominent, covering two and a half or three interspaces. Alternate interspaces dotted with black.

Whereas in X. thomasius the tenth antennal segment has the same silky grey pubescence as the eleventh, in *princeps* the tenth is pubescent brownish black. The club, in the \circlearrowleft , has no wool on the inner surface, and the proportional lengths of the segments are different, the segments measuring respectively 13, 6, 14 in the larger \circlearrowleft and 11, 3, 12 in the smallest one.

The eye is sinuate, the pronotum very strongly punctate, and from the carina to beyond centre broadly depressed, as in *X. thomasius*. The puncturation in the middle of the pronotum is variable in extent, there being a median space of variable size without punctures.

17. Gynaudrocerus antennalis, LAC. (1866).

Fernando Po, one Q: Bahia de S. Carlos, III. 1902.

18. Gynandrocerus thomensis, Jord. (1911).

Principe, one Q: Bahia do Oeste, V. 1901.

Described from a single \circlearrowleft from S. Thomé. The Q from Principe differs in the black areas of the elytra being less broken up by clayish pubescence.

19. Phloeobius hypoxanthus, JORD. (1911).

S. Thomé, a pair: Ribeira Palma, VII. 1900.

Principe, a pair: Roça Inf. D. Henrique, I and IV. 1901.

The underside of the Principe specimens is less bright in colour than in the S. Thomé ones.

20. Derographium fulvum, JORD. (1903).

S. Thomé, one Q: Ribeira Palma, IX. 1900.

The club of the antenna consists of three segments in this sex. The rostrum of the specimen is pubescent white, the head and sides of the pronotum being white spotted with tawny and brown respectively.

21. Gulamentus nanus, nov. spec. (text-fig. 3).

Q. Parvus, rufo-brunneus, griseo pubescens brunneo signatus. Caput inter oculos convexum. Antennæ articulo 9.º triangulari lateribus parum rotundatis, 10.º basi subrotundato, 11.º duobus

praecedentibus simul sumptis longitudine aequali sed latiore. Carina dorsali pronoti basi approximata fere recta laevissime concava, carina laterali parum concava. Scutellum subtriangulare. Elytra sat longa cylindrica. Pygidium triangulare.

Long. 2,4 mm., lat. 1,1 mm.

Hab. Fernando Po: one Q: Punta Frailes, X-XI. 1901.

The smallest species known to me. The head and base of the rostrum are convex; the grey pubescence of head and rostrum is evenly dispersed, not forming spots or patches. Occiput with a brown spot each side. The three segments of the club of the antenna measure: 3 and 3 and 6 in lengths and 3 and 4 and 4 and 2 in width (cf. text-fig. 3).

Pronotum with brown cordiform median patch divided by a grey line, at the apex two ill-defined brown spots and another, rounded, at the side. Dorsal

carina very slightly and very evenly concave, almost straight, with a faint indication of a forward bent in the centre, the carina placed close to the basal margin, but yet separate from it and not touching the base of the elytra; lateral carina distinctly though feebly concave above; the angle of the carina rather more than 90°, with the apex rounded.

Fig. 3.

Scutellum slanting with an angle of about 45°, rounded-trian gular, the apex being slightly but visibly pointed.

Elytra elongate, like the rest of the upper surface pubescent grey, the pubescence not very dense; at the base near the scutellum, but separated from it, a brown patch, a larger one across the suture in the middle, and a third on the apical declivity of each elytrum, all ill-defined, a few additional brown spots or indications of spots between the larger patches. Pygidium triangular, grey, the tip rounded off and turned up.

Underside and legs pubescent grey; bases of the abdominal segments without grey scale-hairs, appearing therefore rufous.

22. Cylindroides ventralis, JORD. (1920).

Fernando Po, one Q: Bahia de S. Carlos, I. 1902. In this specimen all the tarsi are pubescent grey.

23. Araecerus fascioulatus, Degeer (1775).

A series from Principe: Roça Inf. D. Henrique; I-IV. 1901; Bahia do Oeste, V. 1901; and Fernando Po: Punta Frailes, X-XI. 1901.

In the Tring Museum also from S. Thomé (as well as from the mainland).

APPENDIX.

Mecocerus comes, nov. spec.

♂. Niger, subtiliter griseo pubescens, elytro medio nigro-bimaculato.

Hab. Fernand-Vaz, French Congo, IX-X. 1902, one & L. Fea. Probably a colour variety of *M. oculatus* Jord. (1895). Grey pubescence less dense, except along the centre of the rostrum, at the apices of the tibiae and on the tarsi. Each elytrum, instead of bearing one large black patch, has two small round black spots side by side, the upper one extending from row II to row V and the other from VIII to X.

The antennæ of the specimen does not reach beyond the apex of the elytrum, and the prosternum is devoid of spiniform projections.

Xylinades fustis, JORD. (1920).

Described from a Q.L. Fea obtained a pair at Fernand-Vaz, French Congo, which agrees with the type-specimen. The A has the inner surface of the ninth antennal segment covered with short hair, similar hair being present at the apices of segments VI to VIII.